

**REMARKS**

Claims 1 and 4-6 are pending in this Application. Claims 1 and 4-6 were rejected by the Examiner. The Applicant has amended claim 1, added new claim 10 and canceled claim 4. The claim amendments and new claim 10 are fully supported by the specification. No new matter has been added.

**Claim Objections**

**Claim 1**

The Examiner objected to claim 1 due to informalities. The Applicants have amended claim 1 in accordance with the Examiner's suggestion, and therefore respectfully request the Examiner to withdraw the claim objection to claim 1.

**Claim Rejections**

**35 U.S.C. §112**

**Claim 4**

The Examiner rejected claim 4 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In the present reply, claim 4 has been canceled, and therefore the Applicants respectfully request withdrawal of the Examiner's 35 U.S.C. §112, second paragraph, rejection.

**35 U.S.C. §103(a)**

**Claims 1, 2, and 4-6**

The Examiner rejected claims 1, 2, and 4-6 under 35 U.S.C. §103(a) as being unpatentable over Schramm et al. (U.S. Ref. No. 6,208,663) in view of Roobol et al. (U.S. Ref. No. 6,301,479), Dirschedl et al. (U.S. Ref. No. 6,262,994), in further view of Hunzinger et al. (U.S. Ref. No. 7,164,654), in further view of Dahlman et al. (U.S. Ref. No. 6,907,005), and in further view of Frodigh et al. (U.S. Ref. No. 5,726,978).

The Schramm reference discloses a method and system for block ARQ whereby when connection quality drops below an acceptable threshold, ARQ techniques use an alternative modulation/coding scheme.

The Dirschedl reference discloses an arrangement for optimization of data transmission via a bi-directional radio channel. Respective types of modulation can be selected at a transmitter side, with a code rate of forward error correction (FEC) and power of transmitter devices provided at a reception side.

The Hunzinger reference discloses a method and apparatus for controlling the maximum number of retransmissions of an information packet that may be attempted if the information packet was not properly received. Hunzinger assigns a maximum allowable retransmission (MAR) values in order to limit the number of retransmissions.

The Dahlman reference discloses a scheme for flexible ARQ. In Dahlman, a communication channel is set up between a transmitter and receiver and a value is selected for an ARQ parameter for data packets transmitted of the channel. First and second ARQ parameter values are selected for a desired tradeoff between desired performance and goals.

The Roobol reference discloses a technique for providing a secure link when transitioning between pairs of link layer protocol entities in a mobile communication system.

The Frodigh reference discloses a method and system of adaptive channel allocation. A subset of carriers is chosen from a number of available subcarriers.

Certain measurements are utilized in an attempt to reduce co-channel interference on a communication link.

Among other deficiencies in the Schramm, Roobol, Dirschedl, Hunzinger, Dahlman, and Frodigh references, there is no disclosure, teaching, or suggestion of "selectively nulling subchannels from an OFDM frequency set wherein the use of a poor quality subchannel is precluded for a predetermined period and adding a previously nulled subchannel back into the OFDM frequency set where a retransmission rate or retransmission rate or link quality indicates a high quality for the previously nulled subchannel" as is recited in the Applicant's amended independent claim 1.

In addition, there is no disclosure, teaching, or suggestion in the Schramm, Roobol, Dirschedl, Hunzinger, Dahlman, and Frodigh references where "the physical layer ARQ mechanism and physical layer transmitter operate transparently with respect to the higher layer ARQ mechanism". Nor is there any disclosure, teaching, or suggestion in the Schramm, Roobol, Dirschedl, Hunzinger, Dahlman, and Frodigh references of "receiving and demodulating received packets at a physical layer receiver", or "transmitting a corresponding acknowledgment in an acknowledgment generator for a given packet at the physical layer receiver, wherein a mechanism configured to receive the corresponding acknowledgment for the given packet operates transparently with respect to the higher layer ARQ mechanism", all of which are recited in the Applicant's amended independent claim 1.

Accordingly, the Applicant's amended independent claim 1 is patentable over the Schramm, Roobol, Dirschedl, Hunzinger, Dahlman, and Frodigh references whether taken alone or in any combination with one another.

Claims 5-6 depend from patentable amended independent claim 1 and are therefore patentable for at least the same reasons as patentable amended independent claim 1.

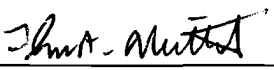
**Conclusion**

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the Applicant's undersigned attorney by telephone at the Examiner's convenience.

In view of the foregoing remarks and amendments, the Applicant respectfully submits that the present application is in condition for allowance and a notice to that effect is respectfully solicited.

Respectfully submitted,

Joseph A. Kwak

By   
Thomas A. Mattioli  
Registration No. 56,773

Volpe and Koenig, P.C.  
United Plaza, Suite 1600  
30 South 17th Street  
Philadelphia, PA 19103  
Telephone: (215) 568-6400  
Facsimile: (215) 568-6499

TAM/yil